ABSTRACT OF THE DISCLOSURE

An actuator control apparatus is provided, capable of causing a state value which changes according to the action of an actuator to match a prescribed target value. A synchronizing mechanism is modeled as the collision of an inertial system object and an elastic system object, and taking as a state amount the deviation between the actual position (Psc) of a coupling sleeve and the target position (Psc_cmd), a computation coefficient (VPOLE) of a switching function used in sliding mode control which takes the state amount as a variable is, in a first process until the coupling sleeve makes contact with a synchronizer ring, set according to the actual position (Psc) of the coupling sleeve, and in a process until the coupling sleeve engages a synchronized gear, is set such that the pressing force of the coupling sleeve matches a target pressing force.